AMENDMENTS TO THE SPECIFICATION

The following is a complete, marked up listing of the amended paragraphs of the Specification with underlined text indicating insertions, and strikethrough and/or double-bracketed text indicating deletions.

Please amend paragraphs [0005] and [0006] to read as follows:

[0005] Another object of the invention relates to a gene fragment from upstream to downstream comprising (1) inverted terminal repeats (ITR) of adeno-associated virus; (2) an α-actin gene promoter of golden zebrafish; (3) a gene encoding a red fluorescent gene product; (4) SV40 poly A and (5) the inverted terminal repeats (ITR) of adeno-associated virus, and wherein the components (1)-(5) are operably linked from upstream to downstream.

[0006] Yet another object of the invention relates to the method of engineering a novel golden zebrafish which carry the red fluorescent transgene and express fluorescent protein in their systemic skeletal muscle.

Please amend paragraphs [0018-21] to read as follows:

[0018] Given the above, the present invention provide a method of producing adult golden zebrafish with systemic red fluorescence on skeletal muscle comprising:

(a) constructing a plasmid including a first ITR, a CMV promoter, a gene encoding red fluorescent gene product, S40 poly A and a second ITR from upstream to downstream;

(b) replacing the CMV promoter with an α-actin gene promoter of golden zebrafish to produce a new plasmid construct in which the α-actin gene promoter is operably linked to the gene encoding a fluorescent gene product;

(c) linearizing the new plasmid construct;

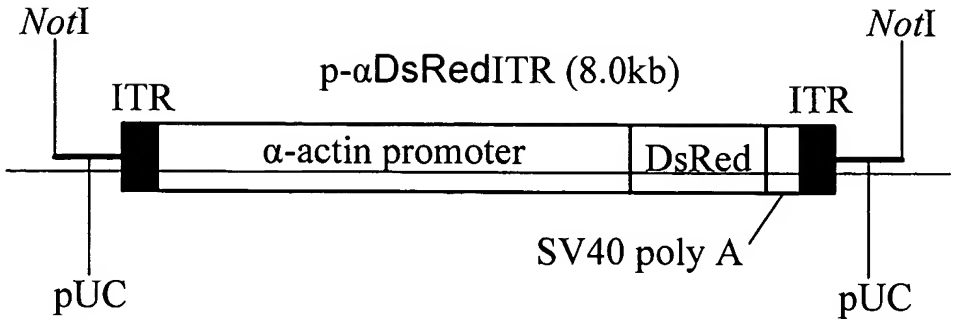
(d) microinjecting the linearized new plasmid construct into fertilized eggs of golden zebrafish;

(e) incubating the microinjected eggs for at least 24 hours to form embryos;

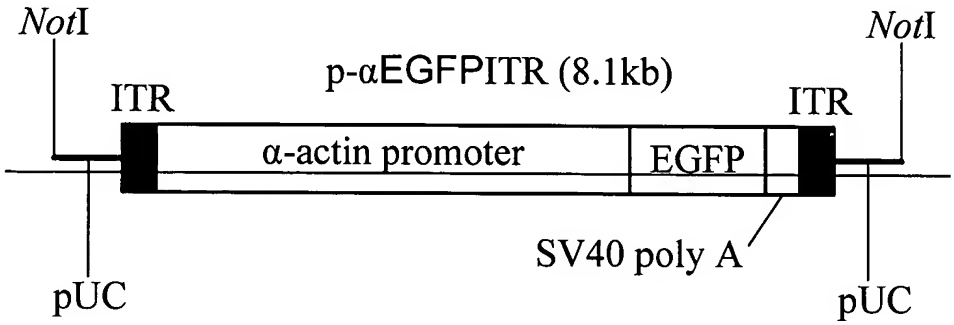
(f) selecting ~~incubated eggs~~ an embryo exhibiting red fluorescence; and

(g) cultivating the ~~selected eggs~~ selected embryo to maturity to produce the golden zebrafish ~~having skeletal muscle that exhibit~~ with systemic red fluorescence on skeletal muscle.

[0019] The linearized plasmid is preferably selected ~~preferred to select~~ from



a first linearized plasmid p-αDsRedITR as illustrated in FIG. 4 or



a second linearized plasmid p-αEGFPITR as illustrated in FIG. 5.

[0020] The preferred fluorescent gene used in the method of the invention is a red fluorescent gene from pDsRed2-1 ~~or green fluorescent gene from pEGFP-1~~.

[0021] The present invention also provides golden zebrafish with systemic fluorescence produced from the method of the invention. The preferred golden zebrafish have systemic red ~~or green~~ fluorescence on skeletal muscle.

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